CONTENTS OF VOLUME 34

Abe, T. See Seegers, W. H., 270.

Adams, G. A. See Murphy, D., 1271.

Adie, P. A. The effect of the sarinase levels of liver on the survival of rabbits injected with sarin, 654.

The purification of sarinase from bovine plasma, 1091.

Adie, P. A., Hoskin, F. C. G., and Trick, G. S. Kinetics of the enzymatic hydrolysis of sarin. 80.

Alivisatos, S. G. A., Kashket, S., and Denstedt, O. F. The metabolism of the erythrocyte. IX. Diphosphopyridine nucleotidase of erythrocytes, 46.

Allard, C., de Lamirande, G., Weber, G., and Cantero, A. Effect of cortisone on the intracellular distribution of phosphatases and ribonucleases in rat liver, 170.

Altermatt, H. A. and Neish, A. C. The biosynthesis of cell wall carbohydrates. III. Further studies on formation of cellulose and xylan from labeled monosaccharides in wheat plants, 405.

Annau, E. Spectrophotometric analysis of proteins by a selective filter technique, 236. Archibald, J. See Markowitz, J., 422.

The structural basis of some corticodiencephalic relations, 372.

Auer, J. The structural basis of some corticodiencepBaer, E. The synthesis of glycerolphosphatides, 288.

Baker, D. G. and Sellers, E. A. Electrolyte metabolism in the rat exposed to ionizing radiation, 835.

Baker, E. See Kovach, J. C., 883.

Bandy, H. E. See Southcott, C. M., 146, 913.

Barker, A. D. See Southcott, C. M., 146.

Barr, M. L. Discussion of paper by Auer, J. (Symposium on Neurophysiology), 379.

Bayley, S. T. See Webber, R. V., 993.

Bélanger, L.-F. See Crevier, M., 869.

Bencosme, S. A. and **Mariz, S.** Regional differences in the glucagon content of pancreas from alloxanized dogs, 779.

Benoiton, L. and Bouthillier, L. P. The metabolism of γ-hydroxyglutamic-α-C¹⁴ acid in the intact rat, 661.

Berry, J. F. Discussion of paper by Carter, H. E., Galanos, D. S., and Fujino, Y. (Symposium on Phospholipids), 331.

Best, C. H. See Young, R. J., 713.

Beveridge, J. M. R. The function of phospholipids, 361.

Beveridge, J. M. R., Connell, W. F., and Mayer, G. A. Dietary factors affecting the level of plasma cholesterol in humans: The role of fat, 441.

Beznák, A. B. L. With the technical assistance of Robineau, I. Changes in the electrocardiogram and heart choline ester content of thiamine-deficient and pair-fed rats, 845.

Beznák, M. Hemodynamic changes following aortic constriction in normal and in hypophysectomized rats, 791.

Bilinski, E. See Dulaney, E. L., 1195.

Birmingham, M. K. See Schönbaum, E., 527.

Bishop, C. T. See Murphy, D., 1271.

Blackwood, A. C. See Spencer, J. F. T., 495.

Boothroyd, B., Thorn, J. A., and Haskins, R. H. Biochemistry of the Ustilaginales. XII. Characterization of extracellular glycolipids produced by *Ustilago* sp., 10.

Bouthillier, L. P. See Benoiton, L., 661; Goldner, M., 116; Kraml, M., 783; Letellier, G., 1123.

Boyd, E. M. and Tikkala, A. O. Lipid and water levels in the kidneys of albino rats bearing Walker carcinoma, 256, 259.

Brown, S. A. and Neish, A. C. Studies of lignin biosynthesis using isotopic carbon, V. Comparative studies on different plant species, 769.

Burgen, A. S. V. A theoretical treatment of glucose reabsorption in the kidney, 466.

Burns, B. D. The electrophysiological approach to the problem of learning, 380. The cause of reflex afterdischarge in the frog's spinal cord, 456.

Buskirk, E. R. See Iampietro, P. F., 721.

Butler, G. C. Discussion of paper by Kennedy, E. P. (Symposium on Phospholipids), 347. Cantero. A. See Allard, C., 170.

Carroll, K. K. and Noble, R. L. Erucic acid and cholesterol excretion in the rat. 981.

Carruthers, G. F. and Gowdey, C. W. The effect of chlorpromazine given with reinfusion on the mortality rate from standardized hemorrhagic shock in the rat, 217.

Carter, H. E., Galanos, D. S., and Fujino, Y. Chemistry of the sphingolipides, 320.

Chefurka, W. and Smallman, B. N. The occurrence of acetylcholine in the housefly, Musca domestica L., 731.

Cho, M. H. and Jaques, L. B. Heparinase. III. Preparation and properties of the enzyme, 799.

Cleghorn, R. A. Pharmacological and endocrinological influences on mentation and emotions, 390.
See also Murphy, C. W., 534.

Collier, H. B. See Solvonuk, P. F., 481.

Common, R. H. See Wright, L. A., 817.

Connell, W. F. See Beveridge, J. M. R., 441.

Cook, F. S. Adaptation of the carbon dioxide yield in the ninhydrin reaction to the study of transamination in plant tissues, 15.

Crevier, M. et Bélanger, L.-F. Étude quantitative de l'activité cholinestérasique de la plaque motrice par voie d'histophotométrie, 869.

Darrach, M. See Newsom, S. E., 1; Southcott, C. M., 146, 913.

Deb, C. and Hart, J. S. Hematological and body fluid adjustments during acclimation to a cold environment, 959.

DeLuca, H. A. See Gray, D., 763; Kline, D. L., 429.

Denstedt, O. F. Discussion of paper by Beveridge, J. M. R. (Symposium on Phospholipids), 370.
See also Alivisatos, S. G. A., 46; Malkin, A., 121, 130, 141; Rubinstein, D., 61, 222, 927.

DesMarais, A. Further studies on thyroid - adrenal - ascorbic acid relations in animals exposed to cold, 1251.

Downie, H. G. The effect of aureomycin on the production of hemorrhagic shock in the rat, 1119.

Drake, C. G., Seguin, J. J., and Stavraky, G. W. The effects of convulsant agents on partially isolated regions of the central nervous system, 689.

Duckert, F. See Penner, J. A., 1199.

Dulaney, E. L., Bilinski, E., and McConnell, W. B. Extracellular organic nitrogen in Ustilago maydis fermentation broths, 1195.

Elliott, K. A. C. See Pappius, H. M., 1007, 1053.

Etebar, H. See Kovach, J. C., 883.

Fairbairn, D. The muscle and integument lipids in female Ascaris lumbricoides, 39.

Fenichel, R. L. See Seegers, W. H., 270.

Ferguson, J. K. W. Discussion of paper by Cleghorn, R. A. (Symposium on Neuro-physiology), 404.
See also McColl, J. D., 903.

Ferguson, M. H., Naimark, A., and Hildes, J. A. Parotid secretion of iodide, 683.

Fisher, K. C. See Manery, J. F., 893.

Fisher, L. M., Millar, G. J., and Jaques, L. B. The effect of oral and intravenous administration of vitamins K on the prothrombin and proconvertin levels of cholecyst-nephrostomized dogs, 1039.

Florey, E. The action of factor I in certain invertebrate organs, 669.

Folch, J. and LeBaron, F. N. The chemistry of the phosphoinositides, 305.

Fregly, M. J. See Iampietro, P. F., 721.

Friedman, C. L. See Friedman, S. M., 158, 475.

Friedman, S. M., Radcliffe, R. W., Turpin, J. E. H., and Friedman, C. L. "Reflex" anuria in the dog, 158.

Friedman, S. M., Webber, W. A., and Friedman, C. L. The effect of pitressin on the renal response to salt loading in the rat, 475.

Fujino, Y. See Carter, H. E., 320.

Galanos, D. S. See Carter, H. E., 320.

Gandossi, S. K. See Southcott, C. M., 146.

Genest, J. See Nowaczynski, W. I., 1023.

Genest, K. See Kalow, W., 637.

Goldner, M. and Bouthillier, L. P. A study of the effect of antihistamines on the metabolism of histamine in the intact rat, 116.

Gourley, D. R. H. See Manery, J. F., 893.

Gowdey, C. W. See Carruthers, G. F., 217; Spoerel, W. E. G. A., 747.

Gowdey, C. W., Pearce, J. W., and Stevenson, J. A. F. Effect of tolazoline in hemorrhagic hypotension in dogs, 951.

Gözsy, B. See Kátó, L., 580.

Gözsy, B. and Kátó, L. Studies on the effects of phagocytic stimulation on microbial disease. V. Stimulation of phagocytic activity of monocytes against tubercle bacilli, strain BCG, 571.

Gray, D. E. and DeLuca, H. A. The effect of insulin administration on arteriovenous glucose differences in the alloxan-diabetic dog, 763.

Hart, J. S. See Deb, C., 959.

Hart, J. S. and Heroux, O. Utilization of body reserves during exposure of mice to low temperatures, 414.

Haskins, R. H. See Boothroyd, B., 10.

Heagy, F. C. See Nicholls, D., 543.

Heroux, O. See Hart, J. S., 414.

Hildes, J. A. See Ferguson, M. H., 683.

Höhn, E. O. Seasonal recrudescence of the thymus in adult birds, 90.

Hokin, L. E. and Hokin, M. R. Metabolism of phospholipids in vitro, 349.

Hokin, M. R. See Hokin, L. E., 349.

Hoogland, P. L. See Truscott, B., 191.

Hoskin, F. C. G. The enzymatic hydrolysis products of sarin, 75.

Some observations concerning the biochemical inertness of methylphosphonic and isopropyl methylphosphonic acids, 743. See also Adie, P. A., 80.

Hurst, R. O. The degradation of desoxyribonucleic acid during alkaline hydrolysis, 265.

Iampietro, P. F., Fregly, M. J., and Buskirk, E. R. Maintenance of body temperature of restrained adrenalectomized rats exposed to cold: Effect of adrenal cortical hormones,

Jaques, L. B. See Cho, M. H., 799; Fisher, L. M., 1039; Taylor, J. D., 1143.

Johnson, S. A. See Penner, J. A., 1199; Seegers, W. H., 887.

Jones, R. N. See Nowaczynski, W. J., 1023.

Kalow, W., Genest, K., and Staron, N. Kinetic studies on the hydrolysis of benzoylcholine by human serum cholinesterase, 637.

Kaplan, J. G. and Paik, Woon-Ki. The alteration of intracellular enzymes. IV. Kinetics of catalase alteration induced by chemical agents, 25.

Kashket, S. See Alivisatos, S. G. A., 46; Rubinstein, D., 61.

Kates, M. Hydrolysis of glycerolphosphatides by plastid phosphatidase, C, 967.

Kátó, L. See Gözsy, B., 571.

Kátó, L. and Gözsy, B. Studies on the effects of phagocytic stimulation on microbial disease. VI. Some factors decreasing phagocytic activity of monocytes against tubercle bacilli, strain BCG, 580.

Kennedy, E. P. The biological synthesis of phospholipids, 334.

Kline, D. L. and DeLuca, H. A. Phospholipid metabolism in liver slices. Labelling of phospholipids with acetate-1-C14, 429.

Koiw, E. See Nowaczynski, W. J., 1023.

Kovach, J. C., Baker, E., and Etebar, H. Residual air determination, 883.

Kovacs, E. Comparative biochemical studies on normal and on poliomyelitis infected tissue cultures. I. Observations on synthetic nutrient mixtures incubated with tissue cultures of normal kidney, 273.

Comparative biochemical studies on normal and on poliomyelitis infected tissue

cultures. II. Investigation of various enzyme systems in homogenates of kidney tissue

cultures of normal rhesus monkeys, 600.

Comparative biochemical studies on normal and on poliomyelitis infected tissue cultures. III. Enzyme assays on homogenates of surviving normal rhesus kidney. Effect of synthetic nutrient mixtures, 619.

Kovacs, L. and Tuba, J. A note on the energy of activation of the amylase in various human body fluids, 6.

Kowalewski, K., Norvell, S. T., Jr., and MacKenzie, W. C. The gastric endocrine and exocrine response to histamine in dogs and effect of passage of blood through the gastric and hepatic vessels on its pepsinogen content, 244.

Kraml, M. and Bouthillier, L. P. Further studies on the metabolism of urocanic- α -C¹⁴ acid, 783.

Lagnado, J. R. and Sourkes, T. L. Inhibition of amine oxidase by metal ions and by sulphydryl compounds, 1185. The enzymatic reduction of tetrazolium salts by amines, 1095.

de Lamirande, G. See Allard, C., 170.

LeBaron, F. N. See Folch, J., 305.

Letellier, G. and Bouthillier, L. P. The formation of 2-pyrrolecarboxylic acid from hydroxy-D- and allohydroxy-D-proline, 1123.

Linford, J. H. Experiments on the use of silicic acid for steroid chromatography, 1153.

Lucas, C. C. Discussion of paper by Folch, J. and LeBaron, F. N. (Symposium on Phospholipids), 318. See also Young, R. J., 713.

McArthur, C. S. Discussion of paper by Baer, E. (Symposium on Phospholipids), 303.

McColl, J. D., Parker, J. M., and Ferguson, J. K. W. Experimental evaluation of diuretics in the rat, 903.

McConnell, W. B. See Dulaney, E. L., 1195.

McConnell, W. B. and Ramachandran, L. K. Acetate metabolism of maturing wheat plants, 180.

McIntosh, H. See Southcott, C. M., 146.

MacIntosh, M. See Moya, F., 563.

MacKenzie, W. C. See Kowalewski, K., 244.

Maclachlan, G. A. and Waygood, E. R. Kinetics of the enzymically-catalyzed oxidation of indoleacetic acid, 1233

McRae, S. C. See Solvonuk, P. F., 481.

Main, A. R. The role of A-esterase in the acute toxicity of paraoxon, TEPP, and parathion, 197.

Malkin, A. and Denstedt, O. F. The metabolism of the erythrocyte. X. The inorganic pyrophosphatase of the erythrocyte, 121.

The metabolism of the erythrocyte. XI. Synthesis of diphosphopyridine nucleotide in the erythrocyte, 130.

The metabolism of the erythrocyte. XII. Diphosphopyridine nucleotide nucleosidase of the rabbit erythrocyte, 141.

Manery, J. F., Gourley, D. R. H., and Fisher, K. C. The potassium uptake and rate of oxygen consumption of isolated frog skeletal muscle in the presence of insulin and lactate,

Mariz, S. See Bencosme, S. A., 779.

Markowitz, J. and Archibald, J. Transbuccal hypophysectomy in the dog, 422.

Matheson, A. T. See Tamboline, B., 815.

Maw, W. A. See Wright, L. A., 817.

Mayer, G. A. See Beveridge, J. M. R., 441.

Merler, E. See Whitaker, D. R., 83.

Migicovsky, B. B. See Wood, J. D., 861.

Millar, G. J. See Fisher, L. M., 1039; Taylor, J. D., 1143.

Monkhouse, F. C. The extractable heparin in different animal tissue, 757.

Mortimer, D. C. See Towers, G. H. N., 511.

Moya, F., Szerb, J. C., and MacIntosh, M. Identification of a hyperglycemic factor in urine, 563.

Murphy, C. W. and Cleghorn, R. A. Study of adrenocortical physiology in jet flying, 534. Murphy, D., Bishop, C. T., and Adams, G. A. A mannan produced by Bacillus polymyxa, 1271.

Naimark, A. See Ferguson, M. H., 683.

Neish, A. C. See Altermatt, H. A., 405; Brown, S. A., 769; Spencer, J. F. T., 495.

Newsom, S. E. See Southcott, C. M., 913.

Newsom, S. E. and Darrach, M. A comparison of the effects of certain corticosteroids and related compounds on the production of circulating hemolytic antibodies in the mouse.

I. Structural variations at C-11 and C-17, 1.

Nicholls, D. Effect of ascorbic acid on the phosphorus metabolism of the adrenal gland, 919.

Nicholls, D., Heagy, F. C., and Rossiter, R. J. Phosphorus metabolism of the adrenal gland of the rat. Effect of exposure to a cold environment for eight days on the amounts and P32-labelling of phospholipid and ribonucleic acid, 543.

Noble, R. L. See Carroll, K. K., 981.

Norvell, S. T., Jr. See Kowalewski, K., 244.

Nowaczynski, W. J. and Steyermark, P. R. Further studies on the absorption spectra of steroids in "100%" phosphoric acid, 592.

Nowaczynski, W. J., Steyermark, P. R., Koiw, E., Genest, J., and Jones, R. N. Detailed study of a purified urinary aldosterone fraction, 1023.

O'Brien, R. D. Activation of schradan by mammalian tissue homogenates, 1131.

Ottolenghi, P. See Rubinstein, D., 222.

Packham, M. A. The absorption of labelled glucose, sodium glucuronate, and glucurone from the gastrointestinal tract of the rat, 587.

Paik, Woon-Ki. See Kaplan, J. G., 25.

Pappius, H. M. and Elliott, K. A. C. Water distribution in incubated slices of brain and other tissues, 1007.

Factors affecting the potassium content of incubated brain slices, 1053.

Parker, J. M. See McColl, J. D., 903.

Patterson, J. M. See Young, R. J., 713.

Pearce, J. W. Discussion of paper by Burns, B. D. (Symposium on Neurophysiology), 388.
See also Gowdey, C. W., 951.

Penner, J. A. See Seegers, W. H., 887.

Penner, J. A., Duckert, F., Johnson, S. A., and Seegers, W. H. Conversion of prothrombin to autoprothrombin II, 1199.

Peretz, S. See Polglase, W. J., 558.

Polglase, W. J. The effect of dihydrostreptomycin on the formation of beta-galactosidase by Escherichia coli, 554.

Polglase, W. J., Peretz, S., and Roote, S. M. Adaptive enzyme formation by dihydrostreptomycin-dependent Escherichia coli, 558.

Radcliffe, R. W. See Friedman, S. M., 158.

Ramachandran, L. K. See McConnell, W. B., 180.

Rixon, R. H. and Stevenson, J. A. F. The water and electrolyte metabolism of rat diaphragm in vitro, 1069.

Ronwin, E. Enzymatic properties of bovine plasmin preparations; evidence for similarity to but non-identity with trypsin, 1169.

Roote, S. M. See Polglase, W. J., 558.

Rossiter, R. J. Discussion of paper by Hokin, L. E. and Hokin, M. R. (Symposium on Phospholipids), 358. See also Nicholls, D., 543.

Rubinstein, D. and Denstedt, O. F. The metabolism of the erythrocyte. XIV. Metabolism of nucleosides by the erythrocyte, 927

Rubinstein, D., Kashket, S., and Denstedt, O. F. With the technical assistance of Gosselin, S. M. Studies on the preservation of blood. IV. The influence of adenosine on the glycolytic activity of the erythrocyte during storage at 4° C., 61.

Rubinstein, D., Ottolenghi, P., and Denstedt, O. F. The metabolism of the erythrocyte. XIII. Enzyme activity in the reticulocyte, 222.

Saffran, M. See Schönbaum, E., 527.

Sallans, H. R. See Spencer, J. F. T., 495.

Scholefield, P. G. Studies of fatty acid oxidation. 4. The effects of fatty acids on the oxidation of other metabolites, 1211.

Studies of fatty acid oxidation. 5. The effect of decanoic acid on oxidative phosphorylation, 1227.

Schönbaum, E., Birmingham, M. K., and Saffran, M. With the technical assistance of Kurlents, E. Metabolism of glucose and steroid formation by rat adrenals in vitro, 527.

Seegers, W. H. See Penner, J. A., 1199.

Seegers, W. H., Abe, T., and Fenichel, R. L. Electrophoresis of autoprothrombin and biothrombin, 270.
 Seegers, W. H., Johnson, S. A., and Penner, J. A. Quantitative concepts related to

prothrombin and autoprothrombin I activity, 887. Seguin, J. J. See Drake, C. G., 689.

Sellers, E. A. See Baker, D. G., 835.

Skelton, F. R. Studies of certain antihistamines as antagonists of the hypertensive and and angiotoxic properties of desoxycorticosterone acetate in the rat, 520.

Smallman, B. N. See Chefurka, W., 731.

Smith, D. B. See Wood, G. C., 1107.

Solvonuk, P. F., McRae, S. C., and Collier, H. B. Creatine phosphokinase activity of mammalian erythrocytes, 481.

Sourkes, T. L. See Lagnado, J. R., 1095, 1185.

Southcott, C. M., Bandy, H. E., Newsom, S. E., and Darrach, M. Metabolism of adrenal steroids in the mouse. 1. Observations on 20α-dihydrocorticosterone and corticosterone in the plasma of mice treated with corticotropin, 913.

Southcott, C. M., Gandossi, S. K., Barker, A. D., Bandy, H. E., McIntosh, H., and Darrach, M. Studies on human adrenal steroids. 1. The effect of corticotropin on components of the free and conjugated plasma C₂₁ adrenal steroid fractions, 146.

Spencer, J. F. T., Neish, A. C., Blackwood, A. C., and Sallans, H. R. Polyhydric alcohol production by osmophilic yeasts: Studies with C¹⁴-labeled glucose, 495.

Spencer, M. S. Ethylene metabolism in tomato fruit. I. Relationship of ethylene evolution to fruit respiration and ripening, 1261.

Spinks, J. W. T. See Taylor, J. D., 1143.

Spoerel, W. E. G. A. and Gowdey, C. W. Cardiovascular effects of pentolinium bitartrate in dogs, 747.

Staron, N. See Kalow, W., 637.

Stavraky, G. W. See Drake, C. G., 689.

Stephenson, N. R. The relative potency of adrenal corticoids by the thymus involution method, 253.

Stevenson, J. A. F. See Gowdey, C. W., 951; Rixon, R. H., 1069.

Steyermark, P. R. See Nowaczynski, W. J., 592, 1023.

Szerb, J. C. See Moya, F., 563.

Tamboline, B., Matheson, A. T., and Zbarsky, S. H. Glucosuria in rats receiving British anti-lewisite (BAL), 815.

Taylor, J. D., Millar, G. J., Jaques, L. B., and Spinks, J. W. T. The distribution of administered vitamin K₁-C¹⁴ in rats, 1143.

Thorn, J. A. See Boothroyd, B., 10.

Tikkala, A. O. See Boyd, E. M., 259.

Towers, G. H. N. See Wickson, M. E., 502.

Towers, G. H. N. and Mortimer, D. C. The role of keto acids in photosynthetic carbon dioxide assimilation, 511.

Triantaphyllopoulos, D. C. Blood globulins reducing the anticoagulant activity of heparin, 939.

Trick, G. S. See Adie, P. A., 80.

Truscott, B. and Hoogland, P. L. The constituents of cod liver with vitamin B₁₂ activity for Lactobacillus leichmannii, 191.

Tuba, J. See Kovacs, L., 6.

Turpin, J. E. H. See Friedman, S. M., 158.

Vaisey, E. B. The non-enzymic reduction of trimethylamine oxide to trimethylamine, dimethylamine, and formaldehyde, 1085.

Waud, D. R. See Waud, R. A., 827.

Waud, R. A. and Waud, D. R. Immediate effects of rapid hemorrhage on hemodynamics in the dog, 827.

Waygood, E. R. See Maclachlan, G. A., 1233.

Webber, R. V. and Bayley, S. T. Some observations on the molecular form of chondroitin sulphate, 993.

Webber, W. A. See Friedman, S. M., 475.

Weber, G. See Allard, C., 170.

Whitaker, D. R. The steric factor in the hydrolysis of β-1,4'-oligoglucosides by Myrothecium cellulase, 102.
The mechanism of degradation of a cellodextrin by Myrothecium cellulase, 488.

Whitaker, D. R. and Merler, E. Cleavage of cellotriose by Myrothecium cellulase, 83.

Wickson, M. E. and Towers, G. H. N. C¹⁴O₂ assimilation in *Lilium regale* with reference to γ-methyleneglutamic acid, 502.

Wood, G. C. and Smith, D. B. Size, stability, and heterogeneity of apurinic acid, 1107.

Wood, J. D. and Migicovsky, B. B. Fatty acid inhibition of cholesterol synthesis, 861.

Wright, L. A., Maw, W. A., and Common, R. H. The influence of thiouracil on the responses of serum protein and serum calcium of the immature pullet to estrogen, with some observations on the responses of oviduct, liver, and kidney, 817.

Young, R. J., Lucas, C. C., Patterson, J. M., and Best, C. H. Lipotropic dose-response studies in rats: Comparisons of choline, betaine, and methionine, 713.

Zbarsky, S. H. See Tamboline, B., 815.

CORRECTION

Vol. 33, p. 888. The following tabular material should be substituted below the heading of Table I.

Day of study	8 a.m.	12 noon	3.30 p.m.
11	.63	.61	_
12*	.51	. 26	.50
13	.43	. 33	.40
14	.47	.48	_

^{*}Infusion of aldosterone.